

In The Main

The annual TNC issue for Massachusetts drinking water suppliers • November 2001

Check list of security measures for water utilities

National Rural Water Association

When assuring the safety of any facility, consider the credo *detect, delay and respond* (Sandia, 2000). Some saboteurs will be deterred if they think they will be detected; others will be deterred if they are delayed in reaching their goal and fear detection. If an intruder is successful, whether it is contamination of the water or physical destruction of the system, utility staff must respond quickly and appropriately to keep the damage at a minimum.

Immediate actions you can take to secure your facilities:

- At your office, well houses, treatment plants, tank truck garages and vaults, make it a rule that doors are locked and alarms set.
- Tell your employees to ask questions of strangers in your facilities or around your equipment.
- Increase lighting in parking lots, treatment bays and other areas with limited staffing.
- Never leave keys in equipment!
- Invite local law enforcement to become familiar with facilities and establish a protocol for reporting and responding to threats.
- Discuss detection, response, and notification issues with public health officials and establish a protocol for reporting and responding to threats.
- Establish a chain of command and call list for emergencies.
- Provide copies of operational procedures to law enforcement and emergency management personnel.
- Limit access to water supply reservoirs.
- Fence and lock vulnerable areas such as wellheads and meter pits. **ITM**

This article was taken and edited from the Northeast Rural Water Association's web site with the permission of Michael Wood-Lewis, Executive Director. NeRWA is a subgroup of the National Rural Water Association.



TNCs meet the challenge

yvette depeiza

Transient non-community systems (TNCs) in Massachusetts are meeting the challenge of providing safe drinking water to customers. These systems serve campgrounds, restaurants, rest stops, golf courses, ice stands and other public access facilities. As a group, TNCs have the highest level of non-compliance because providing public drinking water is not their primary business. But, in the last six years, compliance improved largely due to a DEP compliance initiative and the combined efforts of business owners and operators.



As a result of the enforcement piece of the TNC compliance initiative, there is a steady

decrease in the number of monitoring and reporting violations. The DWP uses TNC monitoring and reporting violations to gauge the overall effectiveness of its compliance and enforcement.

According to Dave Terry, Program Director of the DWP, "when we began this program in '95, we had 800 monitoring and reporting violations. It dropped to roughly 400 last year, and is down to 3 for this year. This is a remarkable accomplishment. We commend our TNC owners and operators for providing safe drinking water to all their visitors and staff." **ITM**

Yvette dePeiza is an environmental engineer and the manager of the Water Quality Assurance Program. She can be reached at (617) 292-5857.

Pre-winter checkup

scott clang, NeRWA

It is time for your pre-winter checkup! Every part of your system should have a thorough inspection to make certain it will operate throughout the entire season. **Check:**

Pump house buildings for:

- drafts, damaged venting, insulation and weather stripping;
- attic screening and evidence of critter damage to electric insulation and weather proofing; and
- replace any damaged insulation and seal wall pipe openings to prevent water entry or damage.

Electric panels for:

- insect activity, nests, dust and debris that may have accumulated in or on the unit; and
- test and operate any heaters installed in your building.

Equipment:

- de-humidifiers for proper operation to avoid dampness and corrosive conditions and possibly equipment failure;
- valves - clean out the box and exercise; flush out dead end lines and clearly mark out blow-offs and valves;
- alarms - early warning devices will avert major headaches when something fails.

Drainage:

- around pump house, storage tank and wellhead; do preventative work now.

Gas units:

- Have qualified gas technicians clean.

Wellheads:

- Check electric conduits, insect activity and location markers; secure sanitary cap and screens.

Promoting consumer confidence

yvette depeiza

To promote consumer confidence in your public drinking water, DEP will implement a TNC annual water quality compliance report starting with the 2001 water quality data.

In May 2002, you will receive written guidance on the TNC annual water quality report and a ready-for-posting one-page copy of your individual water quality report for 2001. Information will include your compliance with the drinking water regulations, possible sources of contamination and contact names and numbers for the owner and certified operator.

Once the information is verified and signed by the owner/operator, it must

be posted in a location where customers frequent. There will be no cost to the TNC to comply with this regulatory requirement 310 CMR 22:16A (23). DWP will check to see if your CCR is posted when they visit your business. We will also notify your local board of health about the CCR.

All TNCs who are registered in Massachusetts will receive the annual water quality compliance report. **ITM**

Yvette dePeiza oversees the CCR program for DEP and can be reached at (617) 292-5857.

Tips for operators and owners

marie tennant

If you own or operate a TNC public water system, you may find these tips helpful.

Renew operator's license by December 31, 2001.

Every operator must renew their license to remain certified. Look for a renewal notice from the Certification Board in November. Make sure they have your correct address and that you have sufficient training contact hours for your renewal.

Check the *Small System Information Video Series* prepared by Ken Kerry, California State University. An operator completing the series can earn 30 TCHs. For more details, call (916) 278-6142 or email wateroffice@owp.csus.edu.

Submit cross connection data.

Submit a completed copy of the Cross-connection Control Program Plan Questionnaire and a report of the cross-connection survey conducted in your

facility. Submit both documents to DEP. If you did not receive a questionnaire, or if you have any questions, contact Otavio dePaula-Santos at (617) 556-1085 or email Otavio.Paula-Santos@state.ma.us.

Complete Annual Statistical Report.

In December, DEP will mail you the form that needs to be completed by the owner and the operator. Send it back to DEP in February. For more information, contact Mark Bolivar at (617) 292-5527 or Mark.Bolivar@state.ma.us.

Systems with contracted operators must have DEP approval.

Both the owner and operator must complete the *Certified Operator Compliance Notice* and send to DEP for approval. Ensure the following:

- Is the information current?
- Is the primary operator fully licensed? (versus *operator in-training*)

See tips on page 5.

Questions on surveys

kelly momberger



In The Main

Department of Environmental Protection

One Winter Street - 6th Floor
Boston, MA 02108

Commonwealth of Massachusetts

Jane Swift, Governor

Executive Office of Environmental Affairs

Bob Durand, Secretary

Department of Environmental Protection

Lauren A. Liss, Commissioner

Bureau of Resource Protection

Cynthia Giles
Assistant Commissioner

Division of Watershed Management

Glenn Haas, Director

Drinking Water Program

David Y. Terry, Program Director
Jude Hutchinson, Editor

This information is available in alternate format upon request to Bette Stewart, ADA Coordinator, BAS/HR, 4th Floor, One Winter Street, Boston, 02108

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All public water systems (PWS) are required to undergo routine sanitary surveys. In 1999, DEP initiated a program to survey each TNC system every five years. Frequent questions are noted below.

What is a sanitary survey?

A sanitary survey is an onsite review of the water sources, facilities, equipment, operation, and maintenance of a PWS. It is used to evaluate the PWS's ability to produce and distribute safe drinking water. It also provides an opportunity to meet DEP staff and discuss issues. Each TNC in operation completed a sanitary survey form in 1999.

What is the regulatory driver for these surveys?

Massachusetts Drinking Water Regulations, 310 CMR 22.04(12)(b), require a sanitary survey every 5 years.

What happens during these surveys?

Your regional DEP drinking water circuit rider will schedule a visit to your system. The PWS certified operator must be present for the survey; the owner is encouraged to attend.

The circuit rider will:

- Inspect the water system, well(s), storage tank(s), and sampling locations;
- Ask questions about water system operations;
- Answer any questions on operations or regulations;

- Assist you with any outstanding compliance issues; and
- After the survey, the PWS will be notified of any actions that must be taken to comply with drinking water regulations.

Are training contact hours (TCHs) available?

Yes. DEP circuit riders are authorized to issue TCHs for any specific training that is provided during the site visit beyond the actual survey.

Why was my system selected; did we do something wrong?

All TNC systems must have a sanitary survey every five years. A system may be surveyed in a specific year for certain reasons: by request of the system, for newly registered systems, or for systems with compliance problems. DEP must survey 20 percent of the PWS's each year; therefore, many of these systems have no specific problems.

Who can I call?

Call your regional drinking water circuit rider with any additional questions.

WERO: Dan Laprade, (413) 755-2289

CERO: Kelly Momberger, (508) 849-4023

NERO: Hilary Jean, (978) 661-7662

SERO: Dan DiSalvio, (508) 946-2793 **ITM**

Kelly Momberger is an environmental engineer in the drinking water program at DEP Worcester.



photo by J. Smith

Dan DiSalvio, Kelly Momberger, Dan Laprade, Hilary Jean

Self assessment

larry stepenuck, barry woods

Are you capable of running your business during difficult times? Do you have the technical expertise to handle a water system problem? Are you financially prepared for the future?

If regulators were asking the question, they would use the word capacity. Simply stated, this term means planning to meet immediate and long-term challenges, and to comply with the drinking water regulations.

So, you need some tools to determine if you are prepared. Tools include self-assessment surveys such as the one below. Other tools such as operator certification, training and source water assessment are discussed in this newsletter. The most important tool is a technical assistant trained to help you with financial and management issues, capital improvements, restructuring, water conservation and external networking.

Remember to be proactive and protect your investment. Learn the regulations and who

to speak with at DEP. Call your regional technical assistant noted on page 6.

[Managerial self-assessment worksheet.](#)

Rate your knowledge of the following parts of your business. Keep it simple, use a numerical scale from 1 to 5 with 5 being the highest level of confidence.

- Identity and ownership
- Governing and accountability
- Staffing and training levels
- Ethics, moral & legal issues
- Mission statement or goals
- Regulations, rules, policies or guidelines
- Insurance coverage
- Master plan & contingency planning
- Management info system
- Internal relationships
- Operating policies
- Financial resources
- External networking
- Technical assistance providers **ITM**

Larry Stepenuck and Barry Woods are water resource specialists with the Northeast Rural Community Assistance Program. You may contact them at (800) 488-1969, x 234.

Source protection reports

lydia thompson

Many TNCs received their Source Water Assessment Program (SWAP) Report during the last year. The remaining systems and boards of health will get reports in the coming months. The report is a protection tool for your water source. It identifies the most significant contamination threats to your water quality and recommends specific protection measures.

[Do you have a septic system, parking lot or local road runoff in your Zone I?](#)

It is very important to protect the area around your well that is called Zone I. Runoff from this area drains to the ground and to your underground water source. Septic systems, parking lots and roads are among the common potential sources of contamination cited in TNC SWAP reports.

[How can you protect your system?](#)

Solutions can be simple, such as maintaining septic systems and diverting stormwater runoff away from your Zone I. Boards of health can help protect wells using health regulations for septic systems and hazardous materials. Take a look at your SWAP report, and use the information to protect your well.

Remember, if it is good for your water, it is good for your business. For more information on source protection, visit the DEP Web site: www.state.ma.us/dep/brp/dws/dwspubs. **ITM**

Lydia Thompson is an environmental analyst in the source protection group of the DWP. She can be reached at (617) 556-1165.

Web notes

doug roth

Surfing the web can be fun and educational at the same time. Many of the sites I've reviewed have things kids will enjoy. Some of the best sites that should spark interest are noted in this column. Some are linked to the DEP Web site: www.state.ma.us/dep.

www.mwra.state.ma.us

Check out the MA Water Resources Authority's site and the water and germs page that gives the facts on germs and their transmission. You can also tour the MWRA drinking water facility by clicking on tours. My favorite part of the site is the *Water Matters* newsletter with crossword puzzles.

www.groundwater.org

How about the Awesome Aquifer Club for kids at the Groundwater Foundation's site? The Foundation believes children can make a difference in getting adults to protect the environment.

www.rcap.org

This is the web site of Rural Community Assistance, an organization that provides assistance to small systems.

www.neruralwater.org

This is Northeast Rural Water Association's web site. See the article on page 6. **ITM**

Doug Roth is an administrative assistant in the division of watershed management who also mans the Hotline. Call him at (617) 292-5656.



Tips from a TNC operator

marisa picone-devine

Many water suppliers, both large and small, community and non-community, receive Notices of Noncompliance (NON) for exceeding a water quality standard or Maximum Contaminant Level (MCL). They also get Notices for monitoring and reporting violations (M/R).

This article focuses on simple steps that operators and facility owners can take to decrease the possibility of a MCL or M/R violation.

1. Get your sampling schedule

Ask the DEP regional office for a sampling schedule. Schedules cover a three-year calendar period, and include all sample parameters with the exception of lead and copper. The format of the sample schedules has been improved in recent years, so interpreting them is easier than in the past.

If your schedule requires nitrate, nitrite and sodium samples in different quarters, ask DEP to change your schedule so that all parameters can be sampled in the same quarter. This will reduce the possibility of forgetting a sample.

If you have questions regarding your schedule, contact your regional DEP office. Staff will assist you with your questions.

Actually, they would prefer to work cooperatively with you before problems arise rather than issue a NON at a later date.

2. Sample early in week / quarter

Whether your system is required to sample for bacteria on a monthly or quarterly basis, be sure to sample at the beginning of that period. Therefore, if you have a coliform-positive sample, you will have adequate time to obtain the required follow-up samples.

Accordingly, sample early in the week, which would give you the opportunity to resample within 24 hours if required due to a coliform-positive. Many laboratories are not opened on the weekends, or charge extra for weekend work. This may be a problem if your Thursday sample is found to be coliform-positive on Friday.

3. Choose sample tap carefully

Use the cleanest tap available for water sampling purposes. Be sure to remove the aerator on the faucet, and disinfect your sample tap and sink with a bleach solution stored in a spray bottle. Run the water for an adequate period of time to ensure a complete flushing of the distribution system.

Once the piping is flushed, adjust the flow of water to comfortably take the sample, and let the water continue running for several minutes before sampling.

Include the following on paperwork:

- Your name and telephone number
- Public Water Supply ID number
- Date and time of collection
- Requested analysis
- Sample ID number
- Other information that may be required on the chain of custody form.

Ask the laboratory to report the results on DEP forms. Some labs may provide the results directly to DEP. If they do not, be sure to submit two copies of your sample results to your regional DEP office upon receiving the lab results.

Simple steps taken now can greatly reduce the chances of a monitoring violation and headaches in the future! **ITM**

Marisa Picone-Devine is the President of Sarian Company in Mashpee and can be reached at (508) 539-2100. She is a certified operator for many TNCs and former supervisor of the Centerville-Osterville- Marstons Mills Water Department.

Tips continued from page 2.

- Does the operator have a license grade that meets or is higher than your system classification?

Communicate with your operator.

Give all correspondence from DEP to your contract operator. Operators need the information to keep your system in compliance with the drinking water regulations.

Operator's exam.

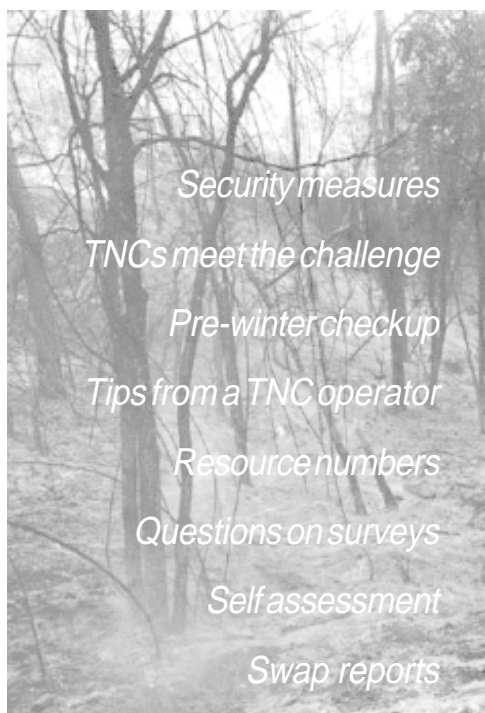
The next operator's exam is in April 2002. You may be an owner who wants to become an operator. There are courses

available for small systems operators. For more information, contact:

- Marie Tennant at (617) 292-5885 or Marie.Tennant-DEP@state.ma.us
- Certification Board at (617) 727-3939 or www.state.ma.us/reg/boards/dw/default.htm
- DEP Web site: www.state.ma.us/dep.

Marie Tennant is an environmental analyst in the certified operator group of the drinking water program.





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In The Main

DEP Drinking Water Program
One Winter Street, 6th Floor
Boston, MA 02108-4746



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Resource numbers

Emergency response

- Drinking water emergencies during daytime working hours, call the Drinking Water Program at (617) 292-5770 or the DEP, Boston office at (617) 292-5500.
- After hours, call the State Police at (800) 525-5555.
- If you have questions on emergency response, call Yvette dePeiza at (617) 292-5857 or Paul Niman at (617) 556-1166.
- To update your emergency response plan (ERP), use the *Handbook for Water Supply Emergencies*, available at: www.state.ma.us/dep.
- You should have your ERP available when DEP conducts a sanitary survey of your facility.

Regional contacts

- WERO: Dan LaPrade, (413) 755-2289; Mike McGrath, (413) 755-2289

- CERO: Kelly Momberger, (508) 849-4023; Ted Cady, (508) 767-2838
- NERO: Hilary Jean, (978) 661-7662; William Zahoruiko, (978) 661-7639
- SERO: Dan DiSalvio, (508) 946-2793; Scott Lussier, (508) 946-2732. **ITM**

Guidance manual in '02

DEP will produce a technical guide for managers and operators of TNCs in 2002. In the interim, use the *Guide to the Massachusetts Requirements for Transient Non-Community Public Water Systems*, June 1998 available at: www.state.ma.us/dep. Each TNC system will receive the revised guide once it is published. Please contact Jude Hutchinson at (617) 292-5931, if you have questions. **ITM**

Water association launches new site

michael wood-lewis

The Northeast Rural Water Association (NeRWA) has a new Web site to serve the small water and wastewater systems it services. The site contains up-to-date news stories, a schedule of NeRWA training courses, descriptions of NeRWA free technical assistance, an events calendar, a list of technical staff, photographs and more. Registration forms for training sessions, conferences and membership are also available. Visit the site at: www.neruralwater.org. **ITM**

Michael Wood-Lewis is the executive director of the NeRWA. Scott Clang, author of the Pre-winter checkup article on page 2, is the New Hampshire Water Systems Specialist at the Association. Both can be reached at (800) 556-3792.

